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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,061	03/05/2002	Kari Hasanen	FORSAL-30	7973

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EXAMINER
HASTINGS, KAREN M

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

CTRS (Retriction Case)

CTC

Office Action Summary

Application No.	Applicant(s)
09/980061	Hasanen et al
Examiner	**Group Art Unit**
NASTINKS	1731

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 11-29-01.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 12-24 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 12-24 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☒ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

Claims 12-24 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

In each of independent claims 12, 18 and 23, it is suggested that it be made clear that the shoe extends across the cross-machine direction of the paper making machine as shown in Figures 1 and 3, for example.

Furthermore, it is not clear how one is measuring the shoe in relationship to the other structural elements involved. It appears that the position sensors sense the position of the shoe relative to the frame member 14. But the claim also encompasses sensing the position of the shoe relative to the backing roll, or any other reference point. Correction/clarification is necessary. It appears that in order to be complete, the claim should at a minimum recite that a sensor measures the position of the shoe relative to a frame 14 upon which the hydraulic cylinders of the shoe are attached.

Claim 15 line 1 --also-- should be inserted after "is" in order to be more clear.

Claim 17 "backing roll/thermoroll" is unclear as to which is the limiting term; furthermore, the claim is replete with relative phrases such as "optimal . . .", "advantageously . . ."

which render the scope of the claim unclear. It is suggested this claim be deleted.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 12-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bubik et al. '084 with Koenigbauer et al., as necessary with However et al.

Bubik et al. exemplifies that it is known to have two opposed press shoe rolls each with a flat platen-like shoe surface opposite one another. See Figures 1 and 2. See column 2 lines 23-48 which teach that the position of the shoe support element may be changeable during operation with reference to their location or position relative to the opposing shoe/support element. This reference alone may be viewed as rendering at least claims 12 and 18 prima facie obvious since clearly one of ordinary skill in the art would immediately envision that one needs to measure the position of the shoe when one is going to be controlling the position of the shoe, potentially during actual operation. See again column 2 lines 40-43. It is recognized the movement of these shoes is not towards one another, yet these claims read in their broadest reasonable light do not require such a movement in direct response to the position measurement.

But in any event, one of ordinary skill in the art would be well aware of the desirability of controlling the opening of a press gap to be as desired. Koenigbauer et al. exemplifies a measuring device used for setting the shut height of the two opposed platens (that is "shoes") of a press. A gauge measures the shut height between the two press surfaces. It is recognized Koenigbauer et al. is not directed to a paper making press, however it does exemplify that one would measure the opening between a press in order to control it. As even necessary,

However et al. is cited since it exemplifies that one of ordinary skill in the papermaking art would also be interested in maintaining the nip between the rolls of a calender according to a desired thickness of the sheet, i.e. a desired "shut height" of the calender rolls. See column 1 lines 10-25 of Hoever et al. Thus one of ordinary skill in the art is well aware of the critical need of adjusting spacing between calender/press rolls. Thus it would have been prima facie obvious to measure the position of the shoe/platen press 5 of Bubik et al. relative to the platen press shoe 6, for example of Figures 1 or 2 of Bubik et al., in order to control the position of the press shoes relative to one another to control the press gap opening. Clearly the press gap opening height determines the nip compression as is readily apparent to one of ordinary skill in the art.

To provide as many sensors as appropriate and to use a computer algorithm etc. as detailed in the dependent claims would have been prima facie obvious to one of ordinary skill in the art in order to efficiently carry out controlling the press nip opening.

Claims 12-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schiel et al. '854 with Volz et al.

Schiel et al. teaches that an extended nip press roll may have a shell 6 which may be controlled by the hydraulic cylinder

support elements 7. See Figures 1 and 3-6. See especially Figure 6 which shows a multiple number of hydraulic cylinders being controlled to adjust the position of the shoe at various heights along the length of the roll. Schiel et al. is silent as to measuring the position of the shoe.

However Volz et al. exemplify that it is well known to regulate the position of a roll shell by having a position sensor at least at both of the ends of the roll shell and then using this as a control input to controlling the hydraulic cylinders which support the roll shell. It is recognized that this is a control deflection calender roll versus a shoe press calender roll. However it is the Examiner's position that one of ordinary skill in the art would have been motivated to use this same/similar position measurement system in a shoe press calender nip in order to define a uniform press nip as taught to be desirable in Schiel et al. '854.

Note even if one modifies Schiel et al. '854 so as to measure the position of the shell 6 in the nip of the extended nip press roll, this position of this shell 6 is clearly a measurement, even if it is an indirect measurement, of the position of the shoe 7 underlying the shell 6 in the nip. Note the claims do not in any way limit themselves to a direct measurement of the shoe position. Indeed the claims do not even define what one is measuring the position of the shoe relative

to. See also column 5 lines 30-37 of Volz et al. which teaches that the sensor senses position of the roll shell and may be relative to the roll support or beam 1 or may also movably detect the position of the roll shell relative to the counter roll 12 or to some other component or part of the system.

With respect to dependent claims to provide as many position measurement sensors as desired and to regulate using a computer algorithm is suggested by the applied art e.g. Volz et al.

Note with respect to claim 23 it is well known that the roll shell 6 of the extended nip press roll of Schiel et al. '854 may be viewed as "a belt" since often the "roll shell" of an extended nip press which is very flexible as taught by Schiel et al. may indeed be a belt. Indeed the belt shell is commonly referred to as a ▒flexible press jacket▒ as for example on column 3 line 33 of Schiel et al.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Laapotti at column 5 lines 57-65 teach that one must open a nip about 20 to 60 mm in order to replace the glide belt of the shoe press and that this is done by opening the hydraulic actuators so as to shift the loading shoe to an open position.

Moore is cited of interest to a roll sensing system for measuring pressure distribution and nip width in a nip roll press.

Schiel '916 is cited of interest for hydraulic measurement system in a shoe press that relieves the pressure on the edges of the paper web going through the press nip.

Ehrola et al. is cited of interest to a variable crown roll loaded by shoes opposite an extended nip press shoe loading device each of which the hydraulic pressure medium may be individually controlled along the transverse roll direction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hastings whose telephone number is (703) 308-0470. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0651.

Karen M. Hastings
Senior Primary Examiner
Art Unit 1731

10/02

KMH/cdc
October 22, 2002